Telephone: (907) 451-2108
DIVISION OF ENVIRONMENTAL HEALTH **Fax: (907) 451-2187**
SOLID WASTE PROGRAM **File Number: 350.15.006**
610 UNIVERSITY AVENUE
FAIRBANKS, AK 99709-3643

October 1, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED # 7099 3400 0015 5441 4695

Major Brian Pollock
611 CES/CEV
10471 20th Street, Ste 320
Elmendorf AFB, AK 99506-2200

Re: Land Application of Biosolids at Barter Island LRRS Permit #0131-BA009, Extension and Modification of Solid Waste Permit #9931-BA004

Dear Major Pollock:

The Department of Environmental Conservation has completed its evaluation of your request for an extension and modification of the above solid waste permit application for a landspreading of biosolids from the Barter Island LRRS sewage lagoon for the purpose of reclamation of former gravel pads and roads. The biosolids from the closed Barter Island LRRS sewage lagoon have been analyzed and meet the standards of Exceptional Quality for metals, Class B for pathogens, and will meet vector attraction reduction by incorporation into the soil as required under the Federal 40 CFR Part 503 sewage sludge regulations, adopted by reference in 18 AAC 60.500. This permit applies to areas totaling approximately 12.4 acres, located on Barter Island LRRS, in Section 13, T.9N, R.33E., Umiat Meridian.

The Department is granting a waiver of soil testing requirements in 18 AAC 60.510(c)(4)(B) and the biosolids testing for phosphorus and potassium in 18 AAC 60.510(c)(4)(C). The Department is also granting approval for land application at 200-lbs. nitrogen per acre, twice the agronomic rate. These decisions are based on maintaining equal protection of public health and the environment, a limited application area of biosolids from the sewage lagoon closure, the lack of an aquifer of resource value in this area and a mandatory 50-foot separation between the biosolids and any surface water bodies.

The Department is issuing this permit in accordance with AS 46, 18 AAC 15, and 18 AAC 60. Please review the conditions and stipulations in the permit and ensure they are all understood. This permit is effective upon issuance and expires July 1, 2004. If it is necessary to obtain a renewal of this permit, the Department requires that a renewal application be submitted 30 days before the permit expiration date.

Any person who disagrees with this decision may appeal the decision by requesting an adjudicatory hearing, using the procedures contained in 18 AAC 15.200-310. Hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 105, Juneau, Alaska 99801-1795, within 30 days of receipt of this letter. If a hearing is not requested within 30 days, the right to appeal is waived. Please also send a copy of the request to the undersigned.

Sincerely,

Nancy B. Sonafrank
For Heather T. Stockard
Solid Waste Program Manager

NS/ XD (EH/SW/FBKS - G:\EH\SW\1999\9931-BA004 Barter Is. LRRS.doc)

Enclosure: Permit 0131-BA009

cc w/enc: James Fife, 611 CES/CEVC

Bcc: Heather Stockard, ADEC/SW - Juneau

ALASKA DEPARTMENT
OF
ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL HEALTH
610 UNIVERSITY AVENUE
FAIRBANKS, ALASKA 99709-3643

BIOSOLIDS LANDSPREADING PERMIT

Permit: **0131-BA009** Date: October 1, 2001

This Solid Waste Permit is issued to the Department of the Air Force, 611th CES/CC, 6900 9th St., Suite. 360, Elmendorf AFB, AK 99506-2270 for the land application of biosolids at Barter Island LRRS for the purposes of revegetation. This permit applies to land totaling approximately 12.4 acres in size and in Section 13, T.9N., R.33E., Umiat Meridian. This permit is subject to the conditions and stipulations in the following Appendices:

Appendix A	Specific Conditions
Appendix B	General Permit Conditions

This permit is issued under provisions of Alaska Statute 46.03, the Alaska Administrative Code, as amended or revised, and other applicable State laws and regulations.

This permit is effective upon issuance and expires July 1, 2004. It may be terminated or modified in accordance with AS 46.03.120.

Nancy B. Sonafrank
For Heather T. Stockard
Solid Waste Program Manager

APPENDIX A - SPECIFIC CONDITIONS

I. SITE DEVELOPMENT:

The permit holder shall:

A. Comply with the plans submitted and landspreading locations identified in the permit application dated March 31, 1999, and letter amendments on April 5, 1999, May 21, 1999, and May 22, 2001 as well as the following permit conditions. Additional modifications may be requested, but must be authorized by a permit amendment, before that modification is effective.

The terms "sludge" or "biosolids" used in this permit refer only to wastewater sludge which has been treated to reduce pathogens and vector attraction, and tested for specific pollutants as described in 40 CFR Part 503.13 and .15, adopted by reference in 18 AAC 60.505. This permit does not address or allow other types of industrial sludges to be landspread.

B. Ensure that site development will allow for application of biosolids at an appropriate agronomic application rate for nitrogen. The calculation of the agronomic rate must be based on the dry weight content of nitrogen present in the biosolids and on any residual nitrogen present in the soil for areas that have been previously landspread. All applications shall be done in a manner that will facilitate site revegetation and closure.

C. Ensure that a minimum 50-foot horizontal distance is maintained between the area being landspread and the property boundary.

D. Ensure that surface water run off from outside the facility does not flow onto the facility and over, into or through uncovered biosolids by incorporating the biosolids into the surface soils. Construct and maintain diversion structures such as ditches or berms, as needed. Maintain drainage patterns in the application area through the installation of drainage structures of adequate number and size to prevent flooding or excessive drainage of adjacent land so as to prevent any water quality violations.

II. BIOSOLIDS APPLICATION:

The permit holder shall:

A. Ensure only tested biosolids from the Barter Island LRRS sewage lagoon are landspread at this facility. Bulk biosolids application shall meet the requirements for priority metals pollutant concentrations listed in Table 3 of 40 CFR Part 503.13. Biosolids being landspread must also meet the Class A or B pathogen reduction requirements of 40 CFR Part 503.32(a) and the Vector Attraction Reduction requirements of Option 10 of 40 CFR Part 503.15 (incorporation into the soil) unless otherwise approved in writing by ADEC. These sections are adopted by reference in 18 AAC 60.505. Should the source or quality of biosolids change significantly, the Department will be notified immediately.

II. BIOSOLIDS HAULING AND APPLICATION: (Cont.)

B. Ensure biosolids soil incorporation requirements listed below are followed:

1. If biosolids need to be transported to the application sites, use a vehicle equipped with a securely fastened tarp over the load.

2. Biosolids must be spread on the surface soil and disked in, plowed, or otherwise incorporated into the soil within 24 hours of placement at the site.

4. Any accumulated biosolids are cleaned from transport trucks or vehicles immediately after loading or depositing of loads, so as to prevent spillage and drag-out of biosolids on roadways.

5. Use flag pins or stakes, clearly marking areas in the locations where biosolids have been land applied, noting dates of application. The stakes may be removed once all the biosolids have been land applied.

6. Biosolids shall not be applied to the land surface during a precipitation event in which the rainfall exceeds 1/4 inch per hour, or within 24 hours following a precipitation event in which more than 1/2 inch of rainfall is measured.

C. Maintain a minimum four-foot separation distance between the biosolids application layer and the seasonal high groundwater level.

D. Ensure biosolids are landspread only when soils are thawed and workable, unless otherwise approved in writing by the Solid Waste Program, Fairbanks Office. Placement of biosolids on snow-covered ground is prohibited.

E. Prohibit landspreading of biosolids on slopes greater than 3 horizontal to 1 vertical, unless controls are present to prevent runoff and erosion.

F. Ensure dry biosolids are handled appropriately to prevent air quality violations for fugitive dust emissions under 18 AAC 50 State Air Quality Regulations.

G. Collect any windblown and littered refuse that may accumulate at the application sites and ensure that it is disposed of in a permitted landfill.

H. Ensure that public access to the biosolids application area is controlled during application times. Construct and maintain any onsite roads, gates, or temporary barricades, as necessary, to assure adequate traffic control. Adequate traffic control means that the site supervisor will maintain positive control of all persons who are within the application area boundaries and that biosolids will be applied only in approved locations.

I. Maintain a minimum horizontal separation distance of at least 50 feet between application areas and any surface water located in the proposed application sites. Grade application areas to drain away

from surface water bodies.

II. BIOSOLIDS HAULING AND APPLICATION: (Cont.)

J. Maintain a minimum horizontal separation of at least 100 feet from the high-tide mark of the ocean shore.

K. Prohibit the application of biosolids within any depressions left by the lagoon closure that could potentially accumulate water. Biosolids application adjacent to the former lagoon area must be graded to drain away from any remaining depression.

L. Seed the surface area to be revegetated with an appropriate mixture of grasses and plants for northern climates during the same first growing season as the biosolids application.

M. Ensure that biosolids meeting the Class B pathogen reduction requirements (as defined in 40 CFR Part 503.32) are land applied with the following site restrictions:

1. Ensure that biosolids are only applied within areas with low potential for public exposure, i.e. areas with access controlled by the Air Force.

2. Ensure public access to land applications areas are restricted for 30 days after biosolids application and post visible signs every 200 feet along normal access routes to the application site. Signs should contain the following information, printed in one-inch high or larger lettering:

Do Not Enter
Biosolids Land Application Site
Applied on (Date)
Contact Person Name
Telephone Number

3. Remove signs and temporary access control fencing or barricades only after vegetation has been successfully established.

III. PROHIBITIONS AND SPECIAL RESTRICTIONS

The permit holder shall:

A. Prohibit land application of biosolids to soils which are frozen or covered with snow.

B. Prohibit the application of biosolids in excess of 200 lbs nitrogen per acres or twice the agronomic requirements for nitrogen for the plant species being grown.

C. Prohibit disposal commercial or household wastes, vehicles, and construction/demolition debris or any hazardous wastes at this site unless disposal is covered under a separate permit.

IV. MONITORING AND REPORTING

The permit holder shall:

A. Visually monitor the application sites each month during land application activities for signs of potential damage from erosion or operations. Retain the inspection results in the site operating record for at least five years.

B. Conduct analytical testing of the biosolids prior to landspreading for priority metals (arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc). Ensure that metals concentrations (in dry weight) do not exceed Pollutant Concentration limits for land application in Table 3 of 40 CFR Part 503.13, adopted by reference in 18 AAC 60.050.

C. Conduct analytical testing for polychlorinated biphenyls (PCBs) and ensure that concentrations do not exceed 10 mg/kg.

D. Ensure that, after lagoon and stockpiled biosolids have been blended, the biosolids are tested no more than 30 days prior to their application for fecal coliform bacteria, total solids content and nitrogen, including ammonia-nitrogen, total kjeldahl nitrogen, and nitrate-nitrogen. Ensure that pathogen levels do not exceed Class B standards (i.e. 2,000,000 MPN/dry gram fecal coliform) and adjust the biosolids application rate to ensure nitrogen levels do not exceeded 200 lbs. nitrogen or twice the agronomic rate for the plants used in revegetation.

E. Ensure that soil in the former lagoon area is representatively sampled and tested for fecal coliform bacteria and that analytical results do not exceed 1000 MPN/dry gram.

F. Ensure that representative soil samples are taken from any area used for repeated annual biosolids application. Analyzed the soil samples for nitrogen, including ammonia-nitrogen, total kjeldahl nitrogen, and nitrate-nitrogen. Recalculate biosolids application rates to adjust for residual nitrogen from the soil and previously applied biosolids.

G. Submit an annual biosolids management report by November 1 of each year to the Department. Information in the report should include:

1. a map showing the areas where biosolids have been landspread;
2. information as to the application rates and total number of dry tons of biosolids that have been landspread during the application season;
3. analytical testing data;
4. pathogen reduction method and vector attraction reduction method used to treat the biosolids; and
5. photographs of the areas that have been landspread.

Records shall be retained in the site operating record for at least five years in accordance with 40

CFR Part 503.17(a)(5).

V. CLOSURE AND RESTORATION

The permit holder shall:

A. Notify the Department at least **five** working days before the project is complete and the final truckload of biosolids will be placed at the site.

B. Ensure that the biosolids application areas have been graded to promote and maintain surface water runoff without erosion and seeded with an appropriate plant seed mixture.

C. Remove all biosolids/sludge material and other debris (e.g. liner material) from the former lagoon area and properly dispose the material in accordance with the appropriate permit.

D. Ensure that the former lagoon area is graded to prevent erosion and to minimize any remaining depression.

E. Visually inspect the former lagoon and biosolids application areas annually during the summer months for the first five years following the last biosolids application. Check for signs of damage from settlement or erosion, and signs of failing vegetation. Complete additional surface restoration work and reseeding, if the Department determines that significant erosion or insufficient revegetation has occurred within five years after site closure.

F. Submit a report to the ADEC Solid Waste Program at the end of the five-year post-closure period describing site conditions and summarizing the information collected during post-closure monitoring, and including photographs of the former lagoon site and biosolids application areas.

APPENDIX B - GENERAL PERMIT CONDITIONS

I. ACCESS AND INSPECTION

The permittee shall allow the Commissioner or her/his representative access to the permitted facilities at reasonable times to conduct scheduled or unscheduled inspections or tests to determine compliance with this permit, State laws, and regulations.

II. INFORMATION ACCESS

Except for information relating to confidential processes or methods of manufacture, all records and reports submitted in accordance with the terms of this permit shall be available for public inspection at the State of Alaska Department of Environmental Conservation, Fairbanks Office, 610 University Avenue, Fairbanks, Alaska 99709-3643.

III. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, including, but not limited to, accidents, equipment breakdowns, or labor disputes.

IV. AVAILABILITY

The permittee shall post or maintain a copy of this permit available to the public at the disposal facility.

V. ADVERSE IMPACT

The permittee shall take all necessary means to minimize any adverse impacts to the receiving waters or lands resulting from noncompliance with any limitation specified in this permit, including any additional monitoring needed to determine the nature and impact of the noncomplying activity. The permittee shall cleanup and restore all areas adversely impacted by the noncompliance.

VI. CULTURAL OR PALEONTOLOGICAL RESOURCES

Should cultural or paleontological resources be discovered as a result of this activity, work which would disturb such resources is to be stopped, and the State Historic Preservation Office, Division of Parks and Outdoor Recreation, Department of Natural Resources, is to be notified immediately (907-269-8721).

VII. APPLICATIONS FOR RENEWAL

In accordance with 18 AAC 15.100(d), applications for renewal or amendment of this permit must be made no later than 30 days before the expiration date of the permit or the planned effective date of the amendment.

VIII. OTHER LEGAL OBLIGATIONS

The requirements, duties, and obligations set forth in this permit are in addition to any requirements, duties, or obligations contained in any permit that the Alaska Department of Environmental Conservation or the U.S. Environmental Protection Agency has issued or may issue to the permittee. This permit does not relieve the permittee from the duty to obtain any and all necessary permits and to comply with the requirements contained in any such permit or with applicable state and federal laws and regulations. All activities conducted by the permittee pursuant to the terms of this permit and all plans implemented by the permittee pursuant to the terms of this permit shall comply with all applicable state and federal laws and regulations.

IX. POLLUTION PREVENTION

In order to prevent and minimize present and future pollution, when making management decisions that affect waste generation, the permittee shall consider the following order of priority options: waste source reduction; recycling of waste; waste treatment; and waste disposal.